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**PHOTOGRAPHIC
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REPORT**

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**KRUPNYY DDGS TO KANIN DDG
CONVERSION PROGRAM
USSR**

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**KRUPNYY DDGS TO KANIN DDG CONVERSION PROGRAM
USSR****ABSTRACT**

1. In 1966 the Soviets began a program to convert Krupnny-class surface-to-surface guided missile destroyers (DDGS) to Kanin-class guided missile destroyers (DDG). This report describes that program as it has progressed at the two shipyards involved: Leningrad Shipyard Zhdanov 190 and Vladivostok Naval Base and Shipyard 202. Because three ships have already been completed at the Zhdanov shipyard, it is possible to prepare a production schedule for that yard. The conversion program at Vladivostok started much later than at Zhdanov and is apparently proceeding at a slower pace; it has yet to deliver its first unit to the fleet.

INTRODUCTION

2. The program involves converting a ship with an obsolete surface-to-surface missile system (the SS-N-1) and limited antiaircraft (AA) and antisubmarine warfare (ASW) capabilities (Figure 1a) to a more modern ship with advanced AA and improved ASW capabilities (Figures 1b, 1c and 1d). This is accomplished in five phases:

- I. Stripping of the deck
- II. Major hull modifications
- III. Fitting out
- IV. Sea trials
- V. Post-trial fitting

3. The more important modifications to the ship during conversion include the removal of the SS-N-1 missile system, the fitting of a new bow longer than the old (presumably to house a newer, more sophisticated sonar), the fitting of an SA-N-1 surface-to-air missile (SAM) system, and the installation of more advanced ASW weapons.

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BASIC DESCRIPTION**Conversion Program at Leningrad Shipyard Zhdanov 190**

4. The program at Zhdanov began in the spring of 1966 with the arrival of the first Krupnny DDGS for conversion. When first seen, this ship was med-moored to the quay at the open end of the fitting-out basin. The ship was subsequently stripped of its weapons and electronics and the decks cleared. Between August 1966 and January 1967, the ship disappeared, presumably into the construction hall to undergo major hull modifications. It was next seen in June 1967 fitting out in the basin. In the winter of 1967-68, it apparently completed basic fitting out and departed the yard for sea trials. By April, it had returned to Zhdanov for final fit, including the installation of two sets of quintuple 21-inch torpedo tubes. Unit 1 was delivered to the fleet in the summer of 1968. The conversion therefore took between 27 and 30 months.

5. The second Krupnny DDGS, which arrived in the spring of 1967, repeated the process, although it took somewhat longer to complete than Unit 1. The only apparent difference in the process for this ship was that Phase II was accomplished on the outside ways instead of in the construction hall.

6. The third Krupnny DDGS to be converted arrived at Zhdanov in the fall of 1967. This ship spent more time in Phase I than any other unit (ten to 14 months). It went into the construction hall sometime between late September and mid-November 1968 and was in the hall a longer period of time than Unit 1 (ten to 14 months). It reappeared in the winter of 1969-70 and spent a relatively short period of time fitting out before leaving for sea trials in the summer of 1970. Unit 3 was back in the yard in November and by

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February 1971 had been delivered to the fleet.

7. The fourth Krupnyy arrived at Zhdanov in the spring of 1969. This ship stripped down in approximately seven months and went into the construction hall in December 1969 or January 1970. It reappeared in late winter of 1970-71 and when last seen was in the initial stages of Phase III.

8. The fifth and last Krupnyy in the Western Fleet areas put into Zhdanov for conversion in late spring of 1970. This ship stripped down until the winter of 1970-71 and when last seen was on the outside ways. This makes the second ship to undergo Phase II outside the construction hall.

9. There are some visible differences between Units 1, 2, and 3, primarily in the vicinity of the after stack. Unit 1 has a flush deck athwartships of the stack (Figure 1b). Beginning with Unit 2, that area has been built up into gun mounts for four twin 30-millimeter (mm) AA gun mounts (Figure 1c). Unit 2, however, has never had the guns mounted. Along with gun mounts, a different blast shield was fitted forward of the SAM platform on Units 2 and 3. (Unit 3 is depicted in Figure 1d.) The design is such that the 30mm AA turrets would be protected from blast during a missile launch. The blast deflector on Unit 1 has a lower profile than Units 2 and 3, and it has a forward-inclined wedge-shaped section in the center. This wedge-shaped section is about twice as tall as the top of the rest of the shield. Its function is probably to protect the stack from missile blast.

10. A production schedule of the Krupnyy-to-Kanin conversion program at Leningrad Shipyard Zhdanov 190 is given in Table 1.

Conversion Program at Vladivostok Naval Base and Shipyard 202

11. The Krupnyy-to-Kanin conversion program in the Far East is being accomplished at Vladivostok Naval Base and Shipyard 202. The first Pacific Krupnyy arrived at the yard in the spring of 1970. It began stripping down while med-moored to the quay immediately east of Graving Dock No 1. By late August, very little appeared to have been accomplished. In late October, all the weapons and electronics had been removed, but the missile magazines remained on the decks. In May 1971, the ship was berthed alongside the quay at the eastern extremity of Golden Horn Bay. The aft missile magazine was resting on the quay. The ship appeared to have completed Phase I and was probably ready to enter a graving dock for Phase II.

12. At the same time, the two remaining Krupnyy DDGS in commission were observed at the yard. One unit was observed at about the same position as was occupied by the first Pacific Krupnyy when it began Phase I. The other unit was med-moored to the quay near Pacific Fleet Headquarters and appeared to be completely operational.

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REFERENCES

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REQUIREMENT

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